

Aviation News

MAGAZINE OF THE AVIATION INDUSTRY

MAY 8, 1946



XB-35 Take-Off: Successful test flight of the XB-35, shown here leaving the ground, marked culmination of years of development by Northrop Aircraft, Inc., and an expenditure of millions of dollars. On the 44-minute, 85-mile first flight of the Flying Wing from Northrop Field to the AAF's Muroc test base in California, the pilot reported huge plane lived up to pre-flight expectations. Additional photos on page 9. (Schmidt photo)

Army Ordnance Work Cited to Refute AAF Demands

Appointment of Gen. Aurand to head development program may resolve disputes.....Page 7

United Gets Lucrative San Francisco-Honolulu Run

In separate order, CAB reopens Hawaiian case for re-argument.....Page 10

Damage Toll Mounts as A-Bomb Score is Tabulated

Aviation experts scout hasty judgments supporting present-type naval vessels.....Page 11

Independents Say Subsidy Airlines Stifle Competition

Prescott sees taxpayers footing bill for big lines to crush vet cargo outfits.....Page 17

Latin America is Scene of U.S.-British Export Battle

Our firms back new models after initial campaign by Empire salesmen.....Page 21

Major Airlines File Consolidated Air Freight Tariffs

Move to offer nationwide cargo facilities as non-scheduled competition grows.....Page 27

PAN AMERICAN WORLD AIRWAYS

Uses

VICKERS

HYDRAULIC EQUIPMENT

ON ITS

LOCKHEED CONSTELLATION CLIPPERS



The Lockheed Constellation Clippers recently designed by Pan American World Airways for its New York to London Service use Vickers Hydraulic Equipment.

The Vickers Variable Volume Piston Type Pump automatically delivers the volume of fluid required by the main hydraulic system . . . at all times with minimum horsepower. Maximum operating pressure of this installation is 1750 psi. Vickers Hydraulic Motors are used for wing flap operation because

of their high starting and running torque. Also, they can be stopped accurately in position, started instantly and stopped instantly due to the very low inertia of their moving parts. Their horsepower weight ratio is exceptionally high. The Valve and Relief Valve, Unloading Valve and Accumulator are used in the auxiliary flight control booster system.

This application is indicative of the many uses for Vickers Hydraulic Equipment on aircraft. We will be glad to help you solve your particular problems.



THE AVIATION NEWS

Washington Observer

AIR SHOWS HELP RECRUITING—AAF and Navy air officials' eyes bulged when they discovered what repeat and local air shows were doing to recruiting results in the United States Navy. For example, Birmingham ranked 7th in Navy recruiting last before the recent air carnival. Following the show, when the Navy staged various exhibitions, the city jumped to second recruiting city nationally. Both services now have special units of "young shows," incidentally, which are appearing throughout the country, but local show sponsors must pay for the gasoline which service planes use.

TAX FIGHT TO GO ON—Although Congress probably will adjourn without legislation to prevent multiple taxation of air current, the airlines and their Air Transport Association, for example, are keeping in their drive for such a federal aviation Commission working to find a program satisfactory to state administrators were encouraged by a resolution of the National Tax Association as in Chicago conference which authorized an NTA committee to continue work on the problem with the airlines, CAB, and others concerned. The lines also will have representatives at a meeting of the National Association of Tax Administrators in Seattle in July to discuss multiple taxation.

CAB GETS COUPON SHOWER—Civil Aeronautics Board received hundreds of coupons from the public last week. Now they know how breakfast food nations feel the morning after a box top offer on the radio. The coupons were clipped from a full page New York Times ad run by the Institute of Air Transportation, passed on last week's *Navy*, announcing CAB's proposed restaurant on non-scheduled airlines. Many coupons were accompanied by stirring letters, headed by the IAT's plea, "Why Thrustle US?" Nevertheless, modification in the Board's proposed couponing order, copies of which have already been distributed to the industry for comment, will depend solely on comment attracted by the letters offered before the July 22 deadline. The IAT's campaign was the first to be taken to the public on a matter before the Board.

ALTITUDE RECORD—Report of Maj. W. P. Swenson that bombing has been done in Britain from 55,000 ft., presumably in a B-29 (*Airline News*, July 1), is received with skepticism, by experts in Washington. They point out that in recent tests at Kwajalein, aimed by National Aeronautics Association representatives, a modified B-29 carrying only 1,000 lbs. climbed to 43,000 ft., and that the world's altitude record for straight flight, 56,046 ft., made in 1934 by an Indian Caproni biplane.

THE SUIT'S WORST ENEMY—Conclusive evidence that the plane was more effective against enemy submarines than ships was offered, oddly enough, by the Navy in a little-publicized tabulation of enemy ship losses in the Arctic planes sank 391 U-boats against 264 destroyed by ships. The Pacific scale was 71 kills for ships, however, and 55 for planes. Flares in the Mediterranean sank 3 Italian subs, ships got 1. The record also shows that last-issued Army planes sank almost twice as many submarines in the Atlantic as did Navy carrier-based aircraft, or 53 against 29.

OLD SALT'S SIZZLE—Top Navy brass has been spicing its testimony on Capitol Hill by AAF General Spence and LeMay, who told a Congressional appropriations committee that a B-29 fleet capable of a 400-ton bomb drop was ordered in pre-war Admiral Halsey's carrier task force while it delivered a 500-ton attack on Okinawa. LeMay and the AAF proposal to bomb Japan directly later was vetoed by the Joint Chiefs of Staff as the Navy's request and the 30th Air Force request was ordered to bomb Kyushu air fields. "We were knocking out 400 planes on the air field while the Japs were building 150 more in their factories," LeMay said. Navy insisted was that by making several strikes a day the weight of the carrier attack could be boosted to 1,000 tons.

INDUSTRIAL MOBILIZATION—The Army and Navy are going to planning for industrial mobilization was pointed out by the White House conference attended by Lubbock V. Cahn, president of American Industries Association, and E. E. Wilson, vice-chairman of United Aircraft Corp. (Wilson attended in his capacity as president of Navy Industrial Association) in a group with several others, they were taken to see President Truman by Richard E. Despain, chairman of the Army-Navy Mobilization Board, which is the planning body for industrial mobilization. The program expressed his personal interest in the subject, and asked industry's cooperation with ANMB on a patriotic basis.

HATCHING STAGE—Actually, industrial mobilization planning is not yet underway, with ideas in the hatching, rather than discussion stage. ANMB is carefully feeling its way, extracting much of the ground of the Air Coordinating Committee, which now appears ready quickly to disappear from the picture. One of AGC's left-overs, a report on expanding of the aircraft industry by Henry C. University, has been tucked away in the files and will not be released, although ANMB members have studied it.



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Army Ordnance Research Work Cited as Rebuttal to AAF Demands

Appointment of Maj. Gen. Henry Arnold to head General Staff development program may resolve air force-ordnance jurisdictional disputes.

Appeals for public and Congressional approval of the Army Air Forces' outposts drive for control over research and development of airborne weapons (as distinguished from aircraft) are viewed positively by War Department spokesmen, who characterize the move as a pre-emptive-striking attack on the 12-year tenure of the Army Ordnance Department as trustee of the phase of warfare.

Pleading that the AAF already has responsibility for the development of weapon weapons, a major objection to itself, critics of the AAF proposals point to two salient facts: (1) The creation of required research facilities (the AAF has estimated the bill might reach \$1,000,000,000), being and training of technical personnel and the integration of both into a smooth-working team with the required "know-how" would require enormous expenditures of money and time, and (2) there already exists within the Army Ordnance Department the doctrine, organization, facilities and the productive results that such a program as the AAF proposes might not produce in less than 5-10 years time.

Referred Appointment—The appointment of Major General Henry H. Arnold as Chief, Research and Development Division, U. S. Army General Staff, is expected to resolve much of this difference between the AAF and the AGO through clarification of the "without-bound" line dividing the two agencies. The two-point research which has resulted in much hair-splitting terminology is changing the AAF with the development of "mixed" weapons (such as the J48, an American version of the Nazi V-1 Flying Bomb) and the Ordnance Department with the development of "pure" weapons (such as the Nazi V-2 rocket). General Arnold, although a former

AGO officer, now considerable service in all major theaters with the services of supply.

Within the War Department structure, the AGO is classified as a supplying service and has the responsibility of creating and producing all the weapons for all the "using" services (such as the army, navy, and the military, weapons for the military). The AAF is designated a "using" service and thereby receives its machine guns, aircraft engines, communications, armor, rockets, gyrocompasses, etc. from the AGO. JATO units, for example, are supplied by AGO to both the AAF and the Navy.

Research Heads Research—How



John Mendenhall, one of the nation's greatest scientists, is quoted as saying that this country's greatest missile program is the radio-controlled, solid-fuel anti-aircraft missile (the original jet-actuated sub-rocket) that was tested at the first test base on the Murray Desert. Originally, this RUM-2, dubbed "Little Joe," is launched from shipboard catapult with the aid of four standard rockets (JRP photo).

well equipped the AGO is for the huge task of creating new and refined aerial weapons is seen in its organization created for the purpose.

Administration of the program is vested in the AGO's Research and Development Section, headed until recently by Maj. Gen. G. M. Barnes and now directed by Col. Ross H. Nichols, acting chief, who was Barnes' administrative assistant before the latter's retirement.

Nichols is assisted by an Ordnance Technical Staff, which includes AAF, AGO, Navy and Marine Corps officers, and by an Industry Advisory Committee, which includes Dr. Vannevar Bush. The broadest possible coordination of the program with other services and with industry and universities is planned.

Under this leadership and administration is the Guided Missile Research, headed by Lt. Col. James G. Bush and the Rocket Research Division, under the direction of Col. H. W. Taylor. Under broad policies established by these groups are for missile projects being carried out by ten ordnance laboratories, two proving grounds and 13 universities and industrial laboratories.

Ballistics Laboratory—Much of the theoretical calculations and fundamental research in super-rocket carried out for the AGO, as well as the AAF and the Navy Bureau of Ordnance (Aviation News, June 26), is done by the Ballistics Research Laboratory at Aberdeen Proving Ground, Maryland. Under the direction of Col. Leslie E. Barnes, this laboratory contains the \$2,750,000 super-rocket wind-tunnel, the most powerful in the world. This tunnel has a 33-inch throat, the largest now in operation anywhere. It was used during the war for the analysis of projectile fights but is now being used for the calculation of supersonic data on powered missiles.

The recently inaugurated mathematical "brain" of the NITAC (Electronic Numerical Integrator and Computer), which weighs 39 tons and contains more than 18,000 vacuum tubes, will soon be in operation at Aberdeen.

The destructive effect of various types of ammunition, charges and missiles on strength structures is be-

NEW 5-2

United Gets Hawaii; CAB Reopens Case

United Air Lines last week was notified for the first time that Pan American is handling the Hawaiian route as a decision signed by President Truman. Because of a decision within CAB on whether service should be provided from Los Angeles to Honolulu by an additional carrier, the Board is in a somewhat better position to make a decision on the Hawaiian case for re-assignment and reconsideration.

The decision putting United in competition with Pan American between the mainland and Hawaii was issued by CAB Chairman L. Welch and Panel (panel by his resignation) and Members Oswald Rynga and Shirley Boush. Member Josh Lee filed a concurring and dissenting opinion. Member Clarence Young did not participate.

The Board's opinion, which denied the application of Midway Navigation Co., was one more blow to further carrier entry into the market in air transportation.

UAL plans to use DC-4's on its new 5,400 mile route to Hawaii. The route for which it has applied. First DC-4's are scheduled to be delivered to United around September. Whether service would be inaugurated before Fall will depend on whether equipment was considered profitable.

Executive report on the case was issued almost a year ago (AVIATION NEWS, July 13, 1945).

Bell Rocket Plane Awaits First Test

That flight of Bell Aircraft's radical, jet-winged X-1 is expected shortly now that the rocket motor has been installed. Acceptance tests for the National Advisory Committee for Aeronautics, for which the aircraft has been built, will follow within a few months.

After NACA makes its own tests it will turn the aircraft over to the Army, which is fighting over the money for the plane, and on whose behalf NACA has represented the program.

Claims \$500,000—Lt. Gen. Nathan Twining, chief, Air Materiel Command, claims the money of the X-1 will have the power to push the aircraft along at 1,500 mph. at 50,000 feet. While NACA states the plane was not designed specifically as a supersonic aircraft, there is little doubt but that the test plane will

attempt to exceed the speed of sound.

NACA has specified only that the X-1 must reach Mach number 8 (about 6,800 mph), which is faster than any officially-confirmed flight of a U.S. jet aircraft in level flight. While few details on the plane have been released, it is known that it has extremely short wings, nose-while like the German V-1, and tricycle landing gear.

Design of the X-1 has already been passed, aerodynamically, by flight in a glider. It has been launched from 30-38 in flight and in dives from 33,000 feet has attained a speed of 350 mph. Tests with the rocket motor, the plane will still be launched from 30-38 in flight, and climb as quickly and as steeply as possible with a burst from its rocket motor.

Altitude at 65,000 ft.—At about 65,000 feet, the craft will level off and then make a steep climb to crash through the nose burner. As the duration of the rocket motor is only two minutes, that will mean a tremendous acceleration in a space of seconds. When the motor cuts out, the plane will glide to earth.

Although the altitude temperature at the altitude will be 67 degrees below zero, the speed of the plane will generate such friction that the pilot will need refrigeration.

Douglas to Handle Spares For Surplus Transport Fleet

In anticipation that 99 DC-1 and 129 DC-4 type planes will be in use in the U.S. by the end of the year, Douglas Aircraft Co. has announced that it is reviewing looking for the manufacture of spare parts for these aircraft, and in addition will stock spares for C-47's and C-54's. As a further step toward meeting the needs of operators of Douglas equipment, the company, or special order, will undertake the manufacture of parts not listed in stock.

Hensley to Resign

C. Scott Hensley, formerly managing director of Aviation News, has resigned the Washington Bureau of Newsweek magazine, in the National Press Building. Hensley resigned from the News May 15 and joined Newsweek July 1. In the interim, he had been reported resignation an editorial board member problems for the War Department. He is Washington Area governor for the Aviation Writers Association.

Conference Gives CAA \$121,537,720 for Year

Airport development fund clipped to \$979,890, gets maintenance allowance for 131 planes.

Compensating the \$68,000,000 approved by the House and the \$129,000,000 approved by the Senate, conferences of the two Houses of Congress last week agreed to a continuing appropriation for the Civil Aeronautics Administration of \$121,537,720.

Conferees clipped the \$90,000,000 recommended by the Senate for airport development to \$97,890,000 and \$121,537,720 for airport operation, maintenance, and \$3,975,000 for airport planning.

The Senate figure of \$5,594,000 for CAA operation and maintenance of its 131 mainline planes. The House proposed only \$1,369,000.

Following is the breakdown of the \$121,537,720 conference-approved budget for CAA for the coming year:

- General administration, \$4,333,108, as proposed by the Senate. The House proposed \$4,800,000.
- Establishment of air navigation facilities, \$15,422,500. This compares with the \$15,170,000 recommended by the House and the \$20,012,320 proposed by the Senate.
- Maintenance of air navigation facilities, \$18,544,415, as recommended by the Senate. House approved \$25,541,000.

- Maintenance of foreign air navigation facilities, \$3,976,000. Senate approved \$2,871,000 for this item, including the operation of 23 foreign bases for U.S. and other commercial transport operations.
- Technical development, \$975,000, compared with \$1,000,000 recommended by the Senate and \$790,000 by the House.
- Safety regulations and enforcement, \$7,075,000, as proposed by the Senate, which increased the House-approved allocation of \$6,769,000 to provide CAA with funds for increased controlled activities.

- Airport advisory service, \$200,000 as recommended by both House and Senate.
- Maintenance of aircraft, \$1,369,000 as proposed by the Senate.
- Washington National Airport, \$750,000 as approved by both the House and Senate.
- Airport planning, \$5,595,000, compared with \$13,693,000 proposed by the Senate.
- Airport construction, \$10,000,000, compared with \$25,000,000 proposed by the Senate.

Damage Toll Mounts In Atom Bomb Blast

Airline sources in Washington last week saw little in the initial reports as the atom bomb test at Nagasaki to justify the heavy judgment of some very observers that the results did not indicate the end of present-type naval vessels. Instead, they adopted a "wait-and-see" attitude and pointed to numerous other on-the-spot observers. There was widespread feeling that the post-test building had underemphasized the important point that only one bomb was being dropped. A second consideration is that the bomb destroyed the ship, exploded in the air and in the running fight through the years over the position of bombing planes vs. battleships, no air proponents have claimed ships could be sunk by nuclear explosion.

Severe Checks—It is expected as significant that as the work grew older, damage reports continued to

Bikini Dispatches Delayed

Special dispatches to Atomic News from the "Commodore" correspondent, Seiler House, were delayed by censorship and by propaganda agencies in the Japanese and the American. They will appear next week.

most. First accounts had three ships, two transports, and a destroyer sunk. Two days later, that toll had been increased by the Japanese cruiser Akashi, an auxiliary ship, a freighter, and a minesweeper. In addition 4 other ships were wounded, 25 damaged, out of the total of 72 vessels moored in the port area. Several of the same predicted that when the final assessment is made, it will be found that extensive damage has been done to the hulls of the ships.

While the news was being made by only one bomb, aviation experts were taking with interest that the radio-controlled drone planes had flown in and out of the atomic cloud many times with no evidence of difficulty. The loss of a few drones was blamed on various mechanical and electronic troubles not connected with the bomb blast.

Feeling is that the next test—expanding a bomb in the water—will be far more significant from the standpoint of military action. The test will mark some approximate war-time bombing of ships as much as it will indicate on some

measure the result of ship-bombing with atom bombs, and the effect of sea-surface when atom bombs are used.

Not Battle Conditions—But in connection with the foregoing test, let us later this month or early August, aviation observers expect again that the results must be gauged from the standpoint that only one bomb will be used. Under battle conditions, a squadron or more of bombers would drop many times the weight of bombs being used in these tests.

While great emphasis is being put on the fact that the guns tethered on ships in the water rim of the target area apparently were unharmed after the blast, it is being stressed in Washington that this gives no indication at all of the possible effect on human crews that would be aboard such ships in wartime.

Looking at the maintenance of the ships moored in the explosion would seem to indicate that casualties would be so heavy as to make successful operation of the vessels impossible even if they did not sustain crippling damage. Another possible effect that must be taken into consideration is the aftermath of having crews exposed to radiation. Radiation sickness did not show previously in the Japanese of Hiroshima and Nagasaki, until, in some instances, weeks after the bomb fell.

CAA Approval is Asked For Coordination Changes

Proposed changes in the Civil Aviation Act, worked out by Lockheed Aircraft Corp. with CAA officials on the West Coast as the result of a recent accident to a Pan American plane, have been submitted to the Civil Aeronautics Administration, Washington, and are now under study.



PHOTOED MISSILE.

A single German V-2 which contained cockpit for a pilot, that weapon is the only one of its kind captured by the Allies. Pilot was carried, presumably, only on research and test flights.

Details of the proposal were not disclosed, but it dealt with the driver's shafts from the Lockheed Constellation (Weight 3500) to the cabin pressure. Because of this shaft the bomb has been tested the probable cause of the fire that burned down Pan American's Constellation.

CAA has forbidden the use of cabin pressurization in Constellation until the problem is solved.

CAA Plans for Repair Base Curtailed by Conference

Under a compromise worked out in the House-Senate conference committee on the Commerce Department 1945 appropriation bill, CAA will be restricted in its plan to establish a repair base to service its own aircraft.

The conference committee returned to the original House proposal of having the limitation of CAA's expenditures on level of about \$100 million. The Senate amendment would have forbidden CAA to do any work on which cost of materials would exceed \$100. This, in effect, would have cut private industry in CAA's five-year schedule of spare parts would have been unnecessary, in most cases, the purchase of any materials costing above the limit.

By being the first in labor cost, even though the top figure was doubled, there is the greater chance of a great deal of CAA's aircraft work going to private aircraft repair stations.

Altshuler Joins Airline

Isaac Altshuler, CAA analyst and secretary of the inter-parliamentary international air "Aviation" committee, will resign shortly to return to private industry in an executive capacity with an airline.



Seating with friendly Greeting



Photo showing fuselage interior



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PRIVATE FLYING

New-Twin Engine Pusher Is Developed by Baumann Corp.

Brigadier to sell for less than \$55,000, cruise at 150 and emphasize safety in design; powered by Continental 135 h.p. engines.

A new two-engine pusher biplane has been developed by Baumann Aircraft Corp., Janesville, Wis., is expected to be flying in November.

The plane, designed with emphasis on careful streamlining of nacelles and fuselage and cabin accessibility beyond that usually found in planes of this size, is being developed by J. B. Baumann, president of the company, former research and design engineer at Lockheed, and founder and chief engineer of the old Hawkeye Aircraft Corp. He thinks the plane will be priced at "less than \$15,000" as a basis of production of 100 or more units a year.

► **Cruise at 150 mph.**—Powered with twin pusher 135 h.p. Continental engines, the Brigadier is designed for 150 mph cruising speed at 65% power, for 600 mile range, 170 mph top speed, 80 mph landing speed, 1000 ft min. rate of climb and 18,000 ft. service ceiling.

The cabin floor level will be only 30 in. above the ground, with the door opening directly in the rear seat which is 36 in. wide. Access to the front seats is gained by a 30 in. aisle separating them.

The Brigadier will be of all-metal construction except for fabric covering of nacelles and elevator control surfaces. The plane will use a retractable electric tricycle gear of Baumann's design.

► **Safety Aspects.**—From the standpoint of the potential buyer, greatest interest probably will be shown in the inherent safety aspects indicated by the propeller trailing the wing.

Probably at no time will the use of the airplane be hindered by "propeller hazards." There will be no obstacles for either passengers or ground attendants to come within the propeller area while engines are running. Furthermore, Baumann expects to achieve this safety aspect by extending radio antennae from wing tip to the horizontal stabilizer. If this is done, say some

writing recently toward the propellers will be stopped or slowed by contact with the antenna wires.

The engines will be mounted forward of the main beam of the wing, which is at approximately 30% of the chord. From each engine will extend a 4 ft. chrome molybdenum extension shaft connecting engine and propeller.

► **Forward Draft Cooling.**—Cooling of

the engines on the ground at idling speeds and during taxiing will be accomplished by forced draft induced by a vacuum exhaust jet arrangement. Present plans call for the use of 74 in. hydraulic control variable pitch propellers.

The location of the engines will be ideal for easy access to engine accessories reached by removal of the engine mounting forward of the wing. This opening will be held in place by six thin struts. The exposed engine area will be approximately at shoulder level.

Present plans call for the installation of the fuel tank in the cabin area of a fuselage which will be immediately behind the largest compartment at the rear of the seat area. However, the wing design is such that if necessary, fuel tanks can be engineered, but with less accessibility, into the wing root area.

Structurally the greatest strength of the fuselage is being designed



REDESIGNED TRIMMER

The redesigned three-place Continental Trimmer amphibian is expected to go into production at Port Washington, Long Island, in July. New differences in the model chosen for production are reinforced hull construction, longer landing wheels and enlarged landing gear on floats. Photos at Continental Aircraft's Port Washington plant show, above, Trimmer had undergone stress tests, and below, the production model Trimmer, in final assembly.



into the wing section of the fuselage and forward to the nose wheel recess, a heavy main beam at the bottom of the fuselage forward and offering service as an emergency landing strut on a wheel-up landing is attempted.

Business is financed through a small initial stock issue which is required to carry the project through to completion and test of the prototype.

Commonwealth Offers New Stock Issues

Commonwealth Aviation Corp., 835 Fifth Ave., New York City, registered last week with the Securities and Exchange Commission 100,000 shares of 4 1/2 percent convertible preferred stock, \$15 per share, and 300,000 shares of \$1 per value common stock. These

shares will be publicly offered at \$15 a share for the preferred and \$1 a share for the common stock. The identity of the underwriter was not disclosed in the prospectus but will be filed by amendment later.

Proceeds of the financing will be used for additional working capital to enable the issuer through its subsidiaries to produce personal and military aircraft.

Organized May 10, 1946, under Delaware law, the company was originally named Columbus-Commonwealth Aviation Corp., and had an authorized capital of 3,000,000 shares of \$1 par value common stock. On June 28 the shares were converted, changing the name to Columbus Aviation Corp., and the authorized capital was changed to 3,000,000 shares of \$1 par value stock and 250,000 shares of 4 1/2 percent convertible convertible pre-

Crop Duster

The crop-dusting Helio Model 47 helicopter is being called into action by a 100 farmer cooperative association in the Williams Valley, Okla., following successful field tests at Tulsa, Wash. (Aviation News, June 17, 1946). The co-op which includes owners of approximately 3,000 acres in Polk County, Okla. wants the helicopter to dust its crop of wheat in species of fields which are being increased by heavy infestations of weeds. A dust incorporating three percent DDT, it is to be used at the rate of 25 pounds per acre if the weed is stopped, the farmers expect to expand their acreage of wheat, one of the most important crops in the Northwest.

ferred stock, \$15 per share. On the following day the name of the company was changed by a charter amendment to Commonwealth Aviation Corp., the authorized capitalization remaining the same.

The corporation, according to the prospectus, was organized for the purpose of acquiring all, or as much as possible, of the outstanding capital stocks of Commonwealth Aircraft Corp., a Kansas corporation, Columbus Aircraft Corp., a New York corporation, and Cirrus Corporation, a Delaware corporation, and to produce through these corporations in quantities certain types of small airplanes, particularly the two-place Tigerfly, also the twin engine, three-place Tigerfly amphibian, and also to produce commercial and other aircraft for the United States Government.

Cessna Boosts Schedule On Personal Plane Models

Cessna Aircraft Co., Wichita, announced last week that it had stepped up production to 32 planes a day, and was one month ahead of its original production schedule for its two-place personal planes, Model 130 and 140. The company began retooling for personal plane production shortly after V2 day, and started actual production of Models 130 and 140 in March 1946. At the current rate, the company's production, in dollar volume is now more than \$1,350,000 a month, a rate believed one of the highest in the lightplane industry. The company plans to announce a larger four-place all-metal personal plane later in the year.

Airpark Zoning Plan Set by K. C. Group

Promote residential areas from low flying planes on approach.

An airpark zoning plan, which seeks to answer objections of property owners to construction of airparks in residential areas was announced by the aviation department of the Kansas City (Mo.) chapter of engineers, at a recent Jackson County Aviation day program.

The plan provides for a zone within a radius of one and one-half miles of the point of landing at the airport. It is suggested that property owners outside this zone are not concerned with the air park. This is based on the assumption that planes using the airport will climb to a minimum altitude of 400 ft. before leaving the operations area of 1 1/2 mile radius, under CAA regulations.

Planning Techniques.—When the operations zone is defined, the airpark planner then must list the assumed valuations of all real estate improvements within the zone. Following a determination of the existing value of improvements on a lot, the value of improvements should be given. He takes an average from this, and submits it to the board of zoning appeals. By applying for a zoning permit for an airport in this zone, he agrees to adhere to minimum construction and maintenance of his field that will insure the airport facilities are as attractive as surrounding real estate in the area.

Among minimum requirements are to keep the buildings in good repair, paint exteriors periodically, spend a predetermined percentage of entire project cost on landscaping and beautification, require that all aircraft be registered with building, and, in higher property value zones, require that all buildings be of rigid (stone, concrete, brick) construction.

Miss Chaffee, executive commissioner of the chapter of engineers, in presenting the plan, suggested that it be used by the next applicant for an airport in the Kansas City area, to protect property owners against run-down and unsightly airport structures, as well as to make possible opening of landing facilities in residential areas convenient for the utility of potential buyers.

Chaffee pointed out that future plans for airparks include such things as swimming pools, picnic areas and recreational facilities of many types, which would make the landing



DE HAVILLAND CHIPMUNK:

Definitely! Aircraft of Canada is test flying the new all-metal biplane Chipmunk, a two-place trainer of the Performance Sports as the plane has not yet been released. A two-place day-to-day version of the plane is now being designed, with possibilities as a private aircraft. The plane is powered by a Gypsy DC engine. It is shown in one of its first flights with DeHavilland Test Pilot Pat Pilkington at the controls.

which would make the landing strips completely airtight even to the non-flyers.

Demonstrations at Grandview.—The plane was presented following a demonstration of Grandview airports at takeoffs of a DC-3 airline transport, in a flight pattern for a CAA Class IV airport, a Navy fighter, a Navy observation plane, a DC-13 with propeller in low pitch in a Class IV pattern, compared with other takeoffs of lightplanes such as Cubs and Ercoups, Luscombes and Tigerflies, in a Class I pattern of takeoffs and landings.

Warnings of the demonstration were made by the board of zoning adjustments, and other public officials and press representatives.

Speakers at a program on Airparks following the demonstration included L. S. Lippert, an "Private Aviation," Herbert Howell, of "Kansas City's Airport Shortages," Oliver L. Porter, of St. Louis, Ill., on "The Airport of Tomorrow," and Chaffee.

\$1,000 for Research

Aircraft Owners and Pilots Association has contributed \$1,000 to a research project on personal aircraft injuries, for continuing a study conducted by Hugh De Haven of Cornell University Medical College. The study was started during the war with public funds, to improve cockpit safety factors for military planes. Since war's end, financing of the project has been provided by sponsors including AOPA, the military

services and aircraft manufacturers. Research involves study of safety factors in the human body, and improved aircraft structures with emphasis on occupants in the plane—control chairs, instruments, etc.

Greater St. Louis Operators Organize Trade Association

Operators of light schools, airports, charter services and aerial sales organizations recently banded together in St. Louis, to form the Greater St. Louis Aviation Operators' Association, including all phases of aircraft operations except the scheduled airlines.

Clair E. Boynton, Boynton Flying Service, was elected president. Other officers are William F. Emmert, Emmert-Werner Air Service; Ray Brown, Western Airport, vice-president; Harry Dunsen, Dunsen Aerial Service, secretary; Robert A. Rasmussen, St. Charles airport, treasurer.

The following were named committee chairman: David Kutz, Aviation Underwriters, safety; Harry Crane, former, legal; Frank C. Strud, Puffer Aircraft Sales and Service, membership.

105 Idaho Airports

Idaho had 106 convertible airports as of May 1, according to a recent tabulation by the state department of aeronautics. The list included six state emergency and CAA auxiliary fields and 28 U. S. Forest Service fields. Eleven of the Forest Service fields were listed as being in the "preliminary" stage



PERCIVAL PROCTOR V1:

New version of Percival Aircraft's four-place "jewel" plane, built both for the British home market and for export. Gray is the standard color for the fuselage, with other colors extra.



Only Bona Fide N-S's Eligible for Exemption

Some of the questions causing most concern among unincorporated airline operators as a result of CAB's opinion in the non-scheduled case (AVIATION NEWS, June 30), have been answered by the Board in further clarification of its stand.

In explaining the changes it proposes to make in the exemption under which airlines can currently operate without certificates of convenience and necessity, the Board emphasized that the exemption applies only to "bona fide" non-scheduled, or "true" non-scheduled, operations.

Legal Effect Exchange.—The legal effect of the exemption is contained in section 200.1 of the Civil Air Regulations (section 200.1) under which such operations are permitted without certification and have been since Dec. 2, 1938, has not been changed substantially, the Board said, except for the requirement that non-scheduled carriers register and provide information on their services by July 15, Part 48 of the Civil Air Regulations as has been pointed out (AVIATION NEWS, June 26), as a separate measure setting the stage for issuance of operating certificates for safety purposes.

The Board declared that the Civil Aeronautics Act prevents it from authorizing air transport operations "involving, approximating or approaching the services of scheduled certified air carriers" until public hearing demonstration that the public convenience and necessity requires such services and they therefore are entitled to that type of certificate.

In the aerial campaign to the certificate requirement, CAB is permitted to exempt any air carrier or class of air carriers on which it finds establishment of the requirement would be an undue burden because of the limited extent of, or unusual circumstances affecting the operations.

Outline Exemptions.—In its regulation of non-scheduled services, the statement said, "the Board, occasionally and recently, has been asked to find the required limited extent," unusual circumstances, and "public interest," justifying the Board's temporarily dispensing with certification only in connection with operations of a bona fide non-scheduled, or "true" non-scheduled, character, those in which there is some rarity and infrequency as to preclude any application of a standard or normal consistency of operation."

CAB Non-scheduled Quiz

Removal of the wide interest in the Civil Aeronautics Board's expression of its non-scheduled status, and its proposed amendment of the exemption regulation (CAB 200.1) of the Economic Regulations under which non-scheduled carriers are permitted to operate without certification of convenience and necessity, the Board's answer to some of the questions that have arisen are presented below in full.

Q. Under the status of "bona fide" non-scheduled, are they not subject to the Board's economic regulatory powers except for the current and unusual safety requirements and air traffic rules?

A. The Board's opinion of the fact applies only to obtain certain special treatment for air transportation. It is not the status of the Civil Air Regulations or by the Economic Regulations. Current economic regulatory powers apply to all airlines operating in the United States.

Q. Are interstate airlines regulated by the Board?

A. If the interstate transportation of passengers, cargo, or mail is the primary purpose of the operation, the carrier is subject to the Board's economic regulatory powers. If the operation is primarily for the purpose of transporting passengers, cargo, or mail, the carrier is not subject to the Board's economic regulatory powers.

Q. How is "bona fide" non-scheduled service defined?

A. The term is too loosely used to have a single legal meaning. The Board has developed the concept of "bona fide" non-scheduled service as a concept of "bona fide" non-scheduled service. It is a concept of "bona fide" non-scheduled service. It is a concept of "bona fide" non-scheduled service. It is a concept of "bona fide" non-scheduled service.

Q. Is there any special authority for carriers between two points not served by regularly scheduled airlines?

A. Under the Economic Regulations, non-scheduled service may be performed between any two points in the United States and may be performed by a certified air carrier. The Board has found that the public convenience and necessity requires such service.

Q. Will the proposed new exemption regulation be non-scheduled operations out of business?

A. The proposed exemption regulation will not eliminate any of the existing non-scheduled operations. It will only remove non-scheduled operations from the category of public convenience and necessity. It will not eliminate any of the existing non-scheduled operations.

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has authorized by the Board in one month after time by issuance of a certificate of public convenience and necessity as required by the Act.

Q. What is the 30-day period mentioned in the proposed regulation?

A. The proposed regulation would require a carrier to file a statement of its operations for each month for the next 30 days after the date of the proposed regulation. The statement would be filed with the Board and would be subject to public inspection. The Board would be required to issue a certificate of public convenience and necessity within 30 days of the date of the proposed regulation.

Q. Is the Board's proposed regulation of new scheduled airlines?

A. The Board's proposed regulation of new scheduled airlines is not subject to the Board's economic regulatory powers. It is a concept of "bona fide" non-scheduled service. It is a concept of "bona fide" non-scheduled service. It is a concept of "bona fide" non-scheduled service.

Q. How are the Economic Regulations and Part 48 of the Civil Air Regulations related?

A. They are of equal applicability to all airlines operating in the United States. They are of equal applicability to all airlines operating in the United States. They are of equal applicability to all airlines operating in the United States.

Q. What is the status of express service, couriers, and "air taxis"?

A. Express service, couriers, and "air taxis" are not subject to the Board's economic regulatory powers. They are a concept of "bona fide" non-scheduled service. They are a concept of "bona fide" non-scheduled service. They are a concept of "bona fide" non-scheduled service.

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80-1A, non-scheduled 80-1000, scheduled

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GREER TEST MACHINES have proven their outstanding abilities in testing aircraft. There is a test machine for your aircraft requirements—on the production line, in the laboratory, on the field, and in the hangar. The machines Electrical and Hydraulic are only a few of our standard machines for testing aircraft systems and components.

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Model MP-4—For testing engine pumps.

Model RV-20-40—Condition hydraulic and vacuum pump test machine.

Model RV-30-30—Condition fuel vacuum, and hydraulic pump test machine.

Model RV-20-2—Condition engine-driven fuel pump, and fuel and vacuum test machine.

Various other types and sizes of test machines (pumps and electric powered) including portable and standard models for pressures up to 4,000 psi and up to 30 gpm, and electric pressure up to 10,000 psi. Special testing equipment for gas turbines (see prospectus) required.



Model DQ-2—Console unit equipped with vacuum regulator valves on O-24 and O-37 engines.



Model DQ-2—The electric motor driven portable hydraulic test machine for line testing the performance and operation of various engine hydraulic systems up to 3,400 psi at 8 gpm flow. Also supplied with flow up to 30 gpm at 3,400 psi (Model RV-20-2). Both units supplied with a gas turbine engine.

Model RV-2

Tests and simulates air and vacuum that engine pumps up to 5,400 psi, air flow, and pressure up to 100 psi at either 12 or 24 cubic ft. up to 30 amp capacity.



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Model TQ-20-20—Tests performance of aircraft hydraulic systems up to 3,400 psi and 20 gpm. Includes variable pressure regulator, 300 to 3,400 psi. Includes variable volume control, 0.30 gpm. Optional air pressure up to 200 psi with booster cylinder (optional).



Model HV-30-30—Tests aircraft hydraulic pumps up to 30 HP, 4,000 psi, and 30 gpm. Flowhead controlled 15 psi variable pressure direct flow up to 4,000 psi and 30 gpm. Includes air pressure regulator.

GREER HYDRAULICS, INC., 454 Eighth Street, Brooklyn 15, New York

PRODUCTION

Latin America Scene of Major U. S.-British Export Battle

American firms back new models after aerial campaign by European salesmen with surplus planes.

The struggle between U. S. and British aircraft manufacturers for markets abroad is heating. Latin America the chief battleground. The remaining summer months and early fall will be the showdown period for new equipment, judging by developments.

In the middle of next month, the Bristol Aeroplane Co. will send its *Freighter* across the Atlantic on a 12,000-mile tour through North and South America. Although the 25,000-lb. *Freighter* will land in Canada, it will bring the battle to the home field by being displayed in New York, Chicago, Minneapolis, Portland, Seattle, San Francisco and Los Angeles.

Not right now, however, Fairchild, Vought, and Douglas Corp., one of the U. S. firms most active in export, has arranged with the AAF for a *Packard* to fly along with a *B-44* and *T-40* crusade being sent through Latin America by the AAF either shortly before or shortly after the *Freighter* begins its Latin American showing in Mexico in September.

A British *Alouette*—Up to now, the Latin American market has admittedly been going by default to the British, although the results of the British hand-out are not particularly worrying U. S. companies in an attempt to lock up the market. The British rushed skilled engineers and a bevy of air representatives to South America in the months following the end of the war. They followed this promptly with shipments of surplus aircraft. For instance, 193 *Millie Magisters*, wartime trainers, have been sent to Argentina.

These are now being assembled, but the reaction is not quite what was expected. One report, from an Argentine pilot, put pilot who has had wide experience with U. S. plane types, is that "these are the best advertisements for U. S. aircraft."

In addition, there have been several orders of British surplus planes in other South American countries.

Delayed 2,000 Planes—The importance of the Latin American market is indicated by a recent market research report which estimates that there are approximately 2,000 aircraft of various types in immediate demand in the 20 aviation fields of the Rio Grande. The kind of pressure U. S. manufacturers are up against is highlighted by a recent "news" story in the *Brazil Herald*, published in Rio de Janeiro, which bears a London dateline and says in part:

"An unprecedented U. S. demand for British-made goods is reported by the Daily Mail correspondent from New York. . . . The single announcement by a New York news item that a new consignment of goods has just arrived from Britain from the sale with thousands of Americans clamoring to buy. This in spite of the fact that American manufacturers are turning out quantities of similar types of articles. The reason lies in the U. S. appreciation of superb British craftsmanship. . . . British cars are a sales risk. . . . not because it is hard to get new Americans can these days, but because the Ameri-

cans have seen that the British ones on the whole last longer."

The export battle on date has been waged chiefly with surplus aircraft. There are two distinct upshots on the value of that strategy. Some claim the foreign consumer will become accustomed to a certain make of aircraft through usage of surplus products of that manufacturer. Others hold the view that the superior performance of surplus planes—measured with what can be expected from new aircraft—plus the uncertain condition of many of these countries more all feeling their good. They feel support for this assertion in the fact in experience in date in South America.

Orion Major Battle—The major competition, however, is not in surplus, but in the obtaining of orders for planes, most of which are still on the drawing boards or in the earlier construction stage. On the U. S. side, Fairchild and Piper, among the lightplane makers, have acknowledged export orders, while a newcomer, *Boeing*, in full-scale, claims receipt of a \$750,000 order for 350 *Winghats* for South America. Glenn L. Martin Co. has received an order from the *Deodoro* airline in Argentina for four *Model 407's*, and Boeing has announced plans to go after foreign business on the *Model 417* *Doctina* and *Lockheed*, of course, are already delivering *Constellation* and *DC-4's*.

In the heavier in Britain are *Avro*, with its *Arrows*, 40 percent of the total production go into the export market, de Havilland, with the *Doves*, for which export orders amounting to more than \$2,000,000 are already, and *Percival* which has already delivered 10 *Proctors*, with orders for 40 more on file. These orders have come in from all over the world.



Export Threat: Great Britain's strongest-running export in the export field at the moment probably is the *Delfino* *Doctina* *Dove* which is a new design and already in quantity production. It carries eight passengers, cruises between 160 and 200 mph and was built especially for feeder or short-haul operations.

New Draft Worsens Air Engineer Shortage

One-third of steady aviation industry firms will be hit by another draft class, one plane needs 430 technicians.

Already hit by a critical shortage of engineers, the aircraft industry this week is increasingly worried about the effects of the new draft law. Its provision for the draft of men-factory between the ages of 18 and 40 has perhaps one-third of the weekly small force of engineers now employed, even those who were exempt during the war.

Work on Army and Navy research and experimental continues to be bound to suffer most seriously from the effects of the new law. It is on this type of work that most engineers are employed, and this work also constitutes the greatest part of the aircraft industry's present production.

New Age Irreplaceable—One company's estimate is that about 15 percent of its engineers between the ages of 18-40 employed on such jobs are new subject to call, and about 20 percent of that between the ages of 40 and 44. These men are virtually irreplaceable, as college graduates are also liable to the draft.

For months, the industry has been endeavoring to build up its en-

gineering staffs with little result. The shortage stems from three main causes, most of which intensifies a situation. First, the industry is about three times as large as pre-war, even if every pre-war engineer returned to his job there would still be a great deficiency. Second, many of the industry's wartime engineers were recruited from other industries. Most of these have now returned to their former jobs. Third, the need for engineers is disproportionate to the relation between the pre-war and post-war industry, due to the greater volume of research work which requires a higher proportion of engineers.

Many Shortages—The shortage exists all down the line: aerodynamic engineers, supervising engineers, assistant project engineers, design specialists, engineering designers, etc. One company needs close to 400 engineers, another more than 300. One manufacturer reports that he is at present about 20 percent below his complement of engineers and that his firm will be short 50 percent before should all his engineers subject to the draft be called.

The industry is stamped for a corrective to the situation. At one point during the legislative action on the new draft law there was a provision exempting scientific and technical personnel classified as essential. This was, however, dropped when it was pointed out that select-

ive service boards already have authority to make such exemptions. But pressed by custom, post boards have shown little inclination to exempt aeronautical engineers. Some plants already have laid engineers to the draft, others report that some of their key men have been re-classified LA or ordered to report for physical examination.

Beech Gets \$4,000,000 Loan From Bank Group

The Fourth National Bank in Wichita has completed an agreement between a syndicate of banks in the Middle West and Beech Aircraft Corporation on a \$4,000,000 loan to provide working funds for the company.

Beech officials said the new credit was similar to a \$50,000,000 revolving fund established by a similar syndicate of banks headed by Fourth National in Wichita during the war.

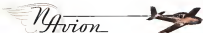
Beech will several models of the model 35, 40-series, four-place, personal and charter plane. In addition Beech officials admitted they are working on a 30-engineer airplane of "very advanced design" for feederline operations out of small airports (Aeronautics News, June 3, 1946). The latter plane is "especially designed to solve the problem of monopolization which denies high grade airline service without making large expenditures for elaborate airports."

Beech to Europe

Walter H. Beech, president, Beech Aircraft Corp., has revealed plans for a European trip to study the foreign aircraft industry and possibly initiate discussions for an exchange of manufacturing rights with some European aircraft companies. Beech has already secured preliminary negotiations with the Fokker Aircraft Works of The Netherlands, but indicated that reports Beech has a definite agreement with Fokker are premature.

Whittle Scams Clarified

The British Minister of Supply has cleared up the status of Air Commodore Frank Whittle, aviator of the jet engine, with an announcement that Whittle will continue to serve the Ministry as a technical adviser on engine design and production to the Controller of Air Supplies. Whittle resigned several months ago from Power Jets Ltd., the firm he founded to pursue jet development.



FOR USEFUL LOAD

The Navion gives you greatest wings on which is past the Air Age. The center-pilot can carry three additional persons and 88 lbs. of baggage. For business use, two people may fly with 655 lbs. of cargo—a load load of 40 cubic ft. Fully loaded with four people, cargo, fuel, and all engine equipment, the Navion delivers high

performance. At 75% normal rated horsepower, the Navion's fully-loaded wings, speed, and economy are among the pace for all other four-place planes. Write today for details of the all-metal Navion. Address Dept. E-3, North American Aviation, Inc., Inglewood, California. Deliveries now being made. Standard Model—\$5,100 (a \$4

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JET-AIDED HELICOPTER

In place of the usual torque-converting rotor at the tail, this British helicopter utilizes jet thrust from an engine in the tail to accomplish the reverse end. A 350 hp engine drives rotor, and its exhaust is expelled through the jet. The craft was built by West Ltd. and Cessna Aircraft Co. (Press Alliance photo.)



Light weight. It is a 100-lb. unit and weighs less than any other unit of its type. It is also lighter than any other unit of its type. It is also lighter than any other unit of its type.



In the past, many, but only, big units have been used. This is the first time a small unit has been used. This is the first time a small unit has been used.

New Developments Pay Big Dividends

TO AIRLINES THAT BUY MARTIN

Pictured on this page are just a few of the many new Martin developments that will boost performance and production of Martin airplanes. Scores of other developments, individually minor but collectively important, will cut costs and increase efficiency of the new Martin airplanes.

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Eastern - Boeing
Chicago & Southern
United
Delta

Martin
AIRCRAFT

Division of Republic Aircraft Corp. Inc.



Big Martin air transport shown. Interior shows Martin airplane, which is the most advanced in the world. It is the most advanced in the world.



Inboard: Forward section of the first Martin transport shown. It is the most advanced in the world.



More Martin air transport shown. It is the most advanced in the world.



General Martin air transport shown. It is the most advanced in the world.

TRANSPORT

Major Airlines File Consolidated Air Freight Tariff With CAB

Move to offer nationwide cargo facilities to U. S. shippers as non-scheduled competition grows; Need not be in agreement.

By MERLIN NICKEL

Twelve airlines have agreed to consolidate their air freight tariffs in the first major cooperative move by the scheduled carriers to offer nation-wide preferential cargo facilities to U. S. shippers.

CAB has been asked to approve an interim agreement governing publication and maintenance of the consolidated tariff, which airline spokesmen say will mark the first time any transportation industry has been able to achieve such coordination on a national basis. The motor freight and rail carriers have opposed such consolidation.

Passenger Post Similar — The agreement on file is similar to the airline passenger agreement approved by CAB several years ago. It sets up procedures, and allocation of expenses, and provides that participants shall notify each other of tariff changes 15 days in advance. Each party "reserves the right to discontinue temporarily, in its own discretion, the classification, rules, regulations, practices, and services in connection with the transportation of air freight over its own line." The agreement also states that the carriers will do their best to establish and maintain "just and reasonable" joint rates where circumstances permit. The agreement would function through the Air Traffic Conference of the Air Transport Association.

The fact that the freight part is similar to that already in effect as regard to passengers led to the proposal by CAB sources, as well as at ATA, that the newer agreement would be approved.

Board Studies Part — At the Board it was noted that the agreement would be studied carefully to determine whether it offered some method of rate stabilization at an uncommercial level, but airline spokesmen pointed out that the agreement does not

establish rates themselves, but merely provides for their publication "in one cover."

The step means elimination of unnecessary variations in freight tariffs, and is expected to reduce tariffing costs to the individual airlines, as well as the ultimate cost to the shipper of air freight.

PCA filed the agreement. Other signatories were American, Boeing, Chicago and Southern, Continental, Eastern, Inland, Mid-Continent, National, United and Western. TWA, one of the principal supporters of the arrangement, which has been under consideration since 1944, signed later. Delta was expected to join soon. Northwest and Colonial were undecided last week, but Pioneer (Reno) probably will sign.

Consensus by its charter was Northwest Airlines, which has filed a separate air freight agreement with Railway Express Agency. The Board has indicated an investigation of that agreement (Aviation News, May 4) to determine whether it is adverse to the public interest and is in violation of the Civil Aeronautics Act, and to find whether further Board action is required.

The Board feels that the competition under which Railway Express is allowed to carry on its air express activities without a CAB certificate of convenience and necessity is not broad enough to cover air freight, and has suggested that it would be appropriate for REXA to file application for certification in both the air express and air freight fields.

Carolina Route Opened By United Air Lines

United Air Lines last week reopened the war-suspended route of Carolina Air Transport between Los Angeles and Santa Barbara. United under an agreement approved by the Civil Aeronautics Board, DC-4's will fly seven round trips daily along the 40-mile route between the mainland and the coast of the southern California coast.

UAL will carry out all provisions of Carolina's certificate and provide the equipment and personnel



GREYHOUND PROVING BUS-COPIER TEAM

Three passengers transfer from a bus to a Sikorsky 2-51 helicopter during an experiment recently conducted in Detroit by Greyhound Lines to determine practicability of this type of service. It's stated that Greyhound plans nation-wide integrated bus-helicopter service to go into effect as soon as equipment can be purchased. (Arms photo)

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ANCHORAGE, ALASKA

★ "Alaska is a great place to live, work and shop. We have more than 40 aircraft in our fleet, seven of them DC-3's. Two DC-4's are on the way. When you come to Alaska, fly with us!"

Route of the Starliners

necessary to conduct the operation. The transportation will be furnished under the name of United, and UAL will assume all profits and losses. The agreement will continue in effect until Dec. 31, 1964, and on a year to year basis thereafter, but may be terminated at the end of this year or any subsequent year after three months' notice by either party.

Globe Presents Air Freight Case to CAB

Cargo carrier president scores "realistic" policy on non-scheduled companies.

Globe Freight Airline, Inc., Hartford, Conn., became the first exclusively air freight carrier to present its case in a CAB hearing when company witnesses took the stand during recent sessions of the Boston-New Orleans route proceeding.

James M. Laven, president, told his line, in marked contrast to many of his non-scheduled competitors, stood for conservation and prudent economy in developing a sound air freight business. He decried the "reckless" philosophy which has led some non-scheduled freight companies to fleet stock issues involving millions of dollars and to overbook as "world-grinding planes."

Overhead High—These airlines, Laven declared, are now operating with tremendous overhead and at an equally tremendous loss. "They have purchased surplus equipment with what appears to be reckless haste," he said, "and are now scrambling for business and holding themselves out to the public as willing to hand anything, at any time and at a rate obviously lower than operating costs."

Globe is now flying a C-47 over the Boston-New Orleans route with

stops at Hartford, New York, Philadelphia, Baltimore, Baltimore, Charlotte, Atlanta and Birmingham where freight offices have been established. Laven told examiners that his company's experience in this operation has demonstrated that an air freight service need fly over a specific route with some semblance of regularity to develop maximum business. He asserted that agreements between so-called freight areas are attempts to take the cream off the air freight business without serving the intermediate points.

Cost Factors Challenged—Accusations for inflated airlines in cross-transportation attempted to disprove Globe's contention that exclusively air freight carriers can load cargo more cheaply than companies which also fly passengers and mail. Globe's cost figures, especially salaries and ground expenses of the proposed scheduled service, were sharply challenged.

Previously, executives of certified airlines had testified that receipt of additional equipment would enable them to satisfy every demand for domestic air freight service in the near future. They said the low-cost planes increasingly available for airline operations can carry large amounts of cargo in addition to a capacity passenger load, thus reducing to a minimum the need for exclusively freight flights.

CAB Plans Liaison

CAB has placed each of its liaison and office under the specific jurisdiction of two Board members as an effort to achieve closer liaison. Assigned to the Office of the Secretary: Public Information Section, and General Counsel's Office are Chairman James M. Larkin and Vice Chairman Oswald Stern. Economic Bureau and Alaska Office Members

PRE-TAKEOFF TESTS

This miniature VHF transmitter was designed by RCA to test radio equipment in its planes before take-off. The 1½-watt transmitter, housed in a case 15 in. long and 4 in. in diameter, is connected with the normal transceiver 11 miles away. Line-of-sight beam of the latter does not reach a plane until it is airborne.

Harley Rosash and Clarence M. Young, Office of Technical Operations, Members Breach and John Lee, Safety Bureau, Members Young and Lee.

CAA Council Changed

Hardy K. Mueley has been appointed assistant general counsel of CAA's Finance-Legal Division to succeed Henry C. Nunnally, Jr., who was recently made general counsel of the Board. Mueley joined the general counsel's staff in 1943. Prior to that time he was employed by the Department of Justice and CAA.

National Asks Detroit

National Airlines has requested CAB permission to extend AM 31 from Norfolk to Chicago via Washington, Pittsburgh, Cleveland and Detroit.



Profit Every Flight—Globe Freight Airline, Inc., which operates the C-47 between Boston and New Orleans, regards itself as one of the few "high-glamour" non-scheduled cargo carriers. Through conservative operation, line profits that every flight it has made has been profitable.



HORSES ACROSS THE BORDER

Port horses carried by air from Mexico to here (a the U. S. were flown from Brownsville, Texas, to Chicago recently in a Brouillette C-47. Equipped with padded padded stalls, the ship carried four horses and one Assembly. They came from stables at Mexico City, where they were flown to Brownsville by National Skyway Freight Corp. to Brownsville.

BOAC Connies Set For Atlantic Service

BOAC was planned to resume its trans-Atlantic service to the U. S. last week with the first westbound flight leaving London July 1 and the initial eastward trip starting from New York July 3.

The Constellation will be used in the operation, which will include two round trips weekly at the rate and is expected to reach a daily basis by August. Although the Constellation has been chosen for the U. S. service pending completion of Midway, other less crowded aircraft as the Atlantic seaboard are being given consideration as alternatives.

Coincident with the start of BOAC's new operations, American Overseas Airlines resumed its trans-Atlantic service to 11 round trips weekly by adding one flight to Stockholm and one to Amsterdam. The schedule made effective last week provides two round trips between the U. S. and Europe on Sundays, Mondays, Tuesdays and Thursdays and one on Wednesdays, Fridays and Saturdays.

Other air services
PAA—Daily service over the pacific coast New York-New York route presently will be increased to three flights daily by August, and the 25th anniversary may be in luck to serve the rest of the year. (Part of the anniversary of the San Juan flight in part of an extensive program which extends to visit Latin America service 100

years this year. Fifty-six new American planes are being placed in operation on the company's Latin American Division this summer shortly after previous flying times and aircraft flying programs regularly over July 1st. The DC-4's were delivered to the Latin American Division during the last two weeks to July 1st at least to meet will be placed in service during the summer.

Trans-Canada—Cooperation of TCA's



PAA ENDS WAR SERVICE

Pan American Airways terminated its wartime activities recently at Georgetown Field when the final flight of its Africa-Orient Division departed before the last 25 PAA personnel handling Air Transport Command work May 25. J. S. Riser (left), commanding general of ATC's Atlantic Division, is shown congratulating John Stree, former manager of the Division, one of the PAA officials cited for their part in Division operations.

Two-Way Phone

Two-way radiophone communication has been installed in the trucks of the W.D. Co., Chicago, to facilitate pickup and delivery of air freight for United Air Lines. Shippers having air freight call UAL, which phones the W.D. dispatcher. The latter gets in communication with the truck driver and his delivery is completed to pick up the shipment.

new route Dilling, Montreal and Toronto with Chicago was scheduled last week, and Trans-Canada service is expected to begin August 1. Operations between Port Angeles, Wash., and Seattle, Wash., from Seattle and Boston and Wichita, Kansas, Columbia, and Seattle are expected later this year. Oak Capital TCA design air carrier permits for the two routes is expected.

Eastern—Col DC-4 flying times on AM 1 from New York Newark and Washington to Atlanta, Birmingham, New Orleans, Memphis and Louisville for as regular 10 min. July 1.
Western—Plans to start service to Dallas City, Tex., but at a much later date, including San Diego, Corpus and Grand Rapids. Atlanta, July 10.

SHORTLISTS

Alaska Airlines recently carried to Washington and returned with an Alaska delegation headed by Gov. Earl Warren. The trip, made via Chicago and Minneapolis, was made to bring to attention of government officials the potential of Alaska's future, including tourism.

American's contract for cargo division started its first international shipment when 12,000 lbs. of fresh fruits went from Newark Airport to Gander, Newfoundland. A load of 17,000 lbs. of fresh salmon consigned to Seattle was flown on the return trip. AA issued a special notice in connection with New Zealand Airways, May 25.

Pratt plans to begin flights to Monterey and Mexico City from the air terminal of San Antonio and Laredo as soon as an agreement between the U. S. and Mexico has been completed.

United reports that May exceeded the line's greatest records for passenger travel and mail and express traffic.

Reeling has arranged with American Express and Thomas Cook & Sons to issue Eastern tickets instead of their own exchange orders in several major cities on the carrier's system.
MM-Continental's operating revenue for May was \$420,000, an 10 percent increase over the same month last year. Net profit was \$88,000, against \$24,700 for May, 1945.

National has left DC-4's in service South to be delivered in October. Company profit for May was \$261,821, operating earnings for 11 months of the fiscal year ended June 30 to \$178,127. May was the third (Part to page 46)

The Airlines step up to VHF



with the famous
"ARC-ONE"

When the Very High Frequency network for communications between planes and ground is in full operation, the noise of the Nation's airlines will be clearer than ever before.

By early 1947 the country's airlines will have received approximately 1700 Western Electric "ARC-ONE" communication systems. This set is the Navy AN[ARC-1] of wartime fame. It is the direct result of Bell Telephone Laboratories' Western Electric pioneering in VHF aviation communications which started back in 1937.

The VHF "ARC-ONE" is another example of Western Electric's ability to furnish outstanding equipment for a world on wings.



Western Electric
 QUALITY COUNTS



AIRCRAFT OWNERS

PARTS FOR YOUR SURPLUS PLANE NOW ARE AVAILABLE NEAR YOU!

Fifty-nine aviation firms have been appointed by the War Assets Administration as agents for the "package" sale of surplus aircraft parts, components, and hardware. They now can supply you with many of the parts that you need to keep flying.

Chosen for their experience and technical "know-how", they are located at strategic points throughout the country to make it convenient for you to fill your needs, and to see what you buy. Many of these are firms with whom you usually deal.

Large quantities of parts have been shipped to WAA agents and new supplies are going out daily.

SEE THEM FOR YOUR NEEDS. THE PRICE IS THE SAME...WHETHER YOU BUY FROM AN AGENT OR DIRECT FROM WAA

If the agents do not yet have what you want, write direct to the Office of Aircraft Disposal, War Assets Administration, Washington 25, D. C. Your order will be given prompt attention.

This is a complete list of WAA Authorized Agents for the sale of aircraft parts:

COMPONENTS:

Aircraft Components Corp.
713 King Street
Alhambra, Florida

Bugher Flying Service, Inc.
Lynch Rd. 1000 Airport
St. Louis 17, Missouri

Buller Aircraft Company
Municipal Airport
Bullhead, Arizona

Burke Aviation Corp.
OIA Station No. 344
Northridge Airport
St. Francis, Florida

David Cramer Aircraft Company
P.O. Box 1211
Glenview 1, California

David Components
Route 100
St. Louis 17, Missouri

David Aircraft, Inc.
Box 100 (Southeast Plaza Airport)
Tomball, Texas, South Carolina

Davidson Aircraft Service
Tomball, Texas

Davidson Aircraft Products Co. Inc.
10000 Field Avenue
2100 Chestnut Street
Cincinnati 11, Ohio

Davidson Aircraft Products Co. Inc.
10000 Field Avenue
2100 Chestnut Street
Cincinnati 11, Ohio

Davidson Aircraft, Inc.
11 Meigs Street
New York 6, New York

Davidson Aircraft, Inc.
11 Meigs Street
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New York 6, New York

Davidson Aircraft, Inc.
11 Meigs Street
New York 6, New York

AIRFRAME PARTS:

Davidson Aircraft, Inc.
11 Meigs Street
New York 6, New York

Davidson Aircraft, Inc.
11 Meigs Street
New York 6, New York

Davidson Aircraft, Inc.
11 Meigs Street
New York 6, New York

Davidson Aircraft, Inc.
11 Meigs Street
New York 6, New York

HARDWARE:

Davidson Aircraft, Inc.
11 Meigs Street
New York 6, New York

Davidson Aircraft, Inc.
11 Meigs Street
New York 6, New York

Davidson Aircraft, Inc.
11 Meigs Street
New York 6, New York

Davidson Aircraft, Inc.
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New York 6, New York

ENGINE PARTS:

Davidson Aircraft, Inc.
11 Meigs Street
New York 6, New York

Davidson Aircraft, Inc.
11 Meigs Street
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New York 6, New York

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INSTRUMENTS:

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11 Meigs Street
New York 6, New York

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New York 6, New York

MISCELLANEOUS:

Davidson Aircraft, Inc.
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New York 6, New York

Davidson Aircraft, Inc.
11 Meigs Street
New York 6, New York

SPECIAL NOTE TO VETERANS: You may use your priority in buying from WAA agents.

WAR ASSETS ADMINISTRATION
WASHINGTON, D. C.

HOW ARE YOUR TIRES?

Here is an outstanding opportunity to purchase surplus tires and tubes at substantially reduced prices. The War Assets Administration has, in stock, a wide variety of casings and tubes made for every type of aircraft used by the Armed Forces from small biplanes to large cargo planes.

This enormous stock of government-owned surplus represents both unused and used tires and tubes. They are offered in a broad range of sizes, tread and cords for both landing and auxiliary (tail and nose) equipment.

These tires and tubes are suitable for use on airlines, cargo carriers or privately owned planes. Every order will receive careful attention regardless of its size.

These tires and tubes are *low priced* for immediate disposal. Check your needs now! Then place your order detailing complete specifications so that price and delivery can be quoted.

If you are located west of the Rockies, address your inquiry to:

WAR ASSETS ADMINISTRATION
155 W. Washington Boulevard
Los Angeles 15, California

If you are located east of the Rockies, address your inquiry to:

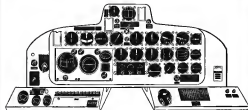
WAR ASSETS ADMINISTRATION
National Aircraft Components Sales Center
4200 Riverside Drive
Hawthorne Airport
Cleveland 25, Ohio

OR

WAR ASSETS ADMINISTRATION
Office of Aircraft Disposal
425 Second Street, N. W.
Washington 25, D. C.

Veterans of World War II:

Veterans may use their priorities in buying these tires and tubes.



AIRCRAFT INSTRUMENTS

Plane owners, Airlines and Fixed Base Operators—If you are interested in purchasing aircraft instruments, the War Assets Administration has a quantity of precision equipment for sale.

This inventory consists of turn and bank indicators, altimeters, gyro horizons, rate of climb indicators, gyro and magnetic compasses and wingtip indicators. There is also a considerable number of engine instruments available. Designed to attract the prudent buyer, these units are

price-graded according to condition. Many are usable with no repairs—others are usable after repairs.

A large supply of type C-3 Link Transmitters is available and reproducible condition are also for sale at attractive prices.

You are invited to demand your representatives to this price and delivery information may be quoted.

You are urged to contact the WAA Authorized Agent nearest you. However, if this is not convenient the following WAA offices will be glad to serve you.

If you are located west of the Rockies, address your inquiry to:

WAR ASSETS ADMINISTRATION
155 W. Washington Boulevard
Los Angeles 15, California

If you are located east of the Rockies, address your inquiry to:

WAR ASSETS ADMINISTRATION
National Aircraft Components Sales Center
4200 Riverside Drive, Hawthorne Airport
Cleveland 25, Ohio

WAR ASSETS ADMINISTRATION

OFFICE OF AIRCRAFT DISPOSAL
425 Second Street, N. W., Washington 25, D. C.

Veterans of World War II: Veterans may use their priorities in buying these aircraft instruments.

PROPELLERS



The War Assets Administration has available government-owned surplus aircraft propellers on various models and specifications. These propellers were built by well-known manufacturers of aircraft components in the specifications of the Armed Forces. They are adaptable to planes ranging from light planes to large transports and are eligible for CAA Certification.

Actively priced for maximum sale, it will pay you to check your requirements now!

If you will send your inquiry stating model and desired specifications, prices and delivery information will be forwarded promptly.

You are urged to contact the WAA Authorized Agent nearest to you. However, if this is not convenient the following WAA offices will be glad to serve you.

If you are located west of the Rockies, address your inquiry to:
WAR ASSETS ADMINISTRATION
133 W. Washington Boulevard
Los Angeles 15, California

If you are located east of the Rockies, address your inquiry to:
WAR ASSETS ADMINISTRATION
National Aircraft Components Sales Center
4100 Riverside Drive
Windsor Airport
Cleveland 22, Ohio

WAR ASSETS ADMINISTRATION
Office of Aircraft Disposal
452 Second Street, N. W.
Washington 25, D. C.

Veterans of World War II: Veterans may use their priorities in buying these propellers.

MISCELLANEOUS PARTS AND EQUIPMENT

Government-owned surplus in aircraft has produced a quantity of spare parts and equipment both unused and usable with repairs.



In this inventory are listed such items as magneto, motors, generators and other electrical accessories. Various types of wheels and brakes, carburetors and carburetor parts, fuel, oil and hydraulic equipment, miscellaneous engine accessories.

From this store of material you will probably find the things you need to keep you flying. Send your inquiry including specifications on just what you want. Prices and delivery information will be sent to you as rapidly as possible.

You are urged to contact the WAA Authorized Agent nearest to you. However, if this is not convenient the following WAA offices will be glad to serve you.

If you are located west of the Rockies, address your inquiry to:

WAR ASSETS ADMINISTRATION
133 W. Washington Boulevard
Los Angeles 15, California

If you are located east of the Rockies, address your inquiry to:

WAR ASSETS ADMINISTRATION
National Aircraft Components Sales Center
4100 Riverside Drive, Municipal Airport
Cleveland 22, Ohio

WAR ASSETS ADMINISTRATION

OFFICE OF AIRCRAFT DISPOSAL

452 Second Street, N. W., Washington 25, D. C.

Veterans of World War II:

Veterans may use their priorities in buying these miscellaneous parts and equipment.

The Traffic Generating Power of Air Transport

FOR YEARS, advocates of air transportation have fought the stubborn use of railroad statistics to prove that new air links will not generate enough passenger traffic to justify certification. The statisticians, however, had their figures to back them up; the airlines were forced to depend mainly on their earnest faith that the public would come to realize the commercial and personal importance of high-speed transportation over ground means.

The air transport industry has begun to accumulate impressive figures which prove not only that superior service attracts some traffic from slower transport, but that it creates much new traffic which never existed before. The prospects of air, of course, have to be considered far years.

Delta Air Lines and Chicago & Southern have produced the most interesting figures we have seen compiled on the subject of air and rail comparisons, which would appear to put to shying the previous skeptics with their hollow of post railroad moved data.

Delta considered as most indicative of the results that follow establishment of one-carrier (air) service—such as between major northern and southern cities—the experience of C & S since it began service in Detroit. This comparison between rail and air traffic in the following table is eloquent testimony to the business generating power of air transportation:

Between	Air Traffic Year to June 30, 1945	Rail 1939
Detroit-Indianapolis	11,189	5,251
Detroit-Des Moines	4,414	578
Detroit-Memphis	1,702	91
Detroit-Jackson	1,399	34
Detroit-New Orleans	1,146	68
Detroit-Etobico	746	23
Detroit-Birmingham	45	1
Detroit-Charlotte	5,712	199

Thus, the 1939 rail traffic showed 11,629 passengers between Detroit and key cities in Indiana, Tennessee, Mississippi, Arkansas, Louisiana, and Texas, at a time when air travel was negligible. Yet, in the twelve months to June 30, 1945, there were 19,614 passengers by air between these points, with cheapest fares.

A Good Appointment

CHANGING recently by the Civil Aeronautics Board of Assistant General Counsel for Safety is an emergency development, and the editor of the first magazine, Merrill Amos, should assure both the Board and the public that the maximum results possible will be forthcoming. Previously, the CAB Safety Bureau's lawyer had been relegated to the Civil Service classification as a section chief. In Government, at all times, the career authority and senior staff counsel where representation is important. By setting up the new position the Board has given timely recognition to the increasing importance of safety and safety enhancement, and has thus corrected its action of some time ago when it abolished the position of Assistant General Counsel, Safety Legal Division, and replaced it with an Assistant General Counsel, Finance Division. That move somehow was tagged with the dollar sign at the expense of safety.

over the longest hops. Nevertheless, every city showed an air travel gain of from ten to several hundred percent over rail traffic.

The year 1939 was considered typical for the railroads by the Federal Coordinator of Transportation in a comprehensive passenger traffic report, and air traffic has increased continuously since the end of the war so that even the air figures shown above are now considered conservative.

In studies of traffic flow between Dallas-Fort Worth and Charlotte, Delta reported that air transportation has developed from there to ten times more travel than formerly moved by rail between these points.

Delta reports the further significant development that the cities it serves in general, even in 1945, held a higher rank nationally for generating air traffic than they did formerly for generating rail traffic. The age of these air figures, over 5 years, probably compensates for the fact that most cities were served by rail then as in 1945, which would lower the relative rank of rail cities.

Atlanta was 20th among all U. S. cities for its 1939 rail traffic. In air traffic for September of 1945 it was 17th. Jackson was 15th in rail, 34th in air. Shreveport moved up from 89th in rail to 41st in air. Dallas moved down 45th by rail to 12th by air. Fort Worth was 77th in rail and 6th in air. New York, of course, held first place in both categories, but Washington, which was 6th in rail traffic, moved to 3rd in air traffic. Elsewhere throughout the country, and even on the international routes, the country's airlines are building traffic which is already, or soon will be, exceeding passenger numbers because of competing ground transport. By judicious management, maintenance and improvement of service, and the intelligent cooperation and leadership of the Civil Aeronautics Board in granting new routes and stifling over-regulation, there is no reason to believe that once our major airlines are yet near the passenger traffic saturation point. Further, the whole supplementary feeder airline network now in its infancy offers an entirely new field of public service.

The Safety Section, primarily responsible for issuing air hearings and sound decisions on safety disciplinary cases, was relegated to an inferior position in the Board's organization. The very important field of federal-state relations in safety matters likewise suffered. In his new position, Mr. Amos will be able to continue to discourage state duplication of regulations and restrictions, and to achieve more cooperation between the state and federal agencies without adding any burden to aviation.

Further, Mr. Amos is a private pilot, a member of a Westchester flying club, and as far from being the short-sighted, anti-type-bound type of bureaucrat we have written so much about on this page as one could find anywhere. He is a friend of private flying, and will not misuse his power. The airline will flourish and be a valuable ally, and we congratulate the Board as has appointment. It is to be hoped that further expansion of the Board's excellent investigation work may be expected, with a closer sensitivity to the excellent work of the old independent Air Safety Board.

HOWARD H. WOOD

plus performance

minus weight

on all sizes of planes

with the

BENDIX

segmented

ROTOR

BRAKE

What are the steps in a transport plant or a small plane for the private type, from to a new and complete set of Bendix Rotor Brake? The steps are: 1. Bendix Rotor Brake, 2. Bendix Rotor Brake, 3. Bendix Rotor Brake, 4. Bendix Rotor Brake, 5. Bendix Rotor Brake, 6. Bendix Rotor Brake, 7. Bendix Rotor Brake, 8. Bendix Rotor Brake, 9. Bendix Rotor Brake, 10. Bendix Rotor Brake, 11. Bendix Rotor Brake, 12. Bendix Rotor Brake, 13. Bendix Rotor Brake, 14. Bendix Rotor Brake, 15. Bendix Rotor Brake, 16. Bendix Rotor Brake, 17. Bendix Rotor Brake, 18. Bendix Rotor Brake, 19. Bendix Rotor Brake, 20. Bendix Rotor Brake, 21. Bendix Rotor Brake, 22. Bendix Rotor Brake, 23. Bendix Rotor Brake, 24. Bendix Rotor Brake, 25. Bendix Rotor Brake, 26. Bendix Rotor Brake, 27. Bendix Rotor Brake, 28. Bendix Rotor Brake, 29. Bendix Rotor Brake, 30. Bendix Rotor Brake, 31. Bendix Rotor Brake, 32. Bendix Rotor Brake, 33. Bendix Rotor Brake, 34. Bendix Rotor Brake, 35. Bendix Rotor Brake, 36. 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Thomas Hunt North, owner and president of North Aviation Co., personally manages Northport Airport—has been in aviation for years as fixed-base operator, flight instructor, and commercial pilot.

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